

IN THE CLAIMS

Please cancel without prejudice claims 14-17.

Please amend claims 2, 6, 9, and 13 as indicated below.

1. (Canceled)

2. (Currently Amended) A method comprising:

establishing a plurality of transmission time slots, each time slot corresponding to one of a plurality of optical transmitters coupled to a head end via an interleaving device;

forming a bit interleaved optical data stream at the interleaving device based on a plurality of optical bits transmitted by the plurality of optical transmitters during a respective time slot associated with each of the optical transmitters, each of the optical transmitters transmitting only one optical bit to the interleaving device within each respective time slot, wherein each time slot has a duration of 10 nanoseconds (ns) and each optical bit is transmitted via a pulse having a pulse width of 2.5 ns; and

transmitting the bit interleaved optical data stream from the interleaving device to the head end over an optical network, wherein a peak power of each pulse is higher than a predetermined threshold that would cause human eye damage while an average power of pulses in the bit interleaved optical data stream is below the predetermined threshold.

3. (Original) The method of claim 2 further comprising:

enabling each of the plurality of optical transmitters to transmit an optical bit during its corresponding time slot.

4. (Original) The method of claim 3 further comprising:

adding an additional optical transmitter to the optical network.

5. (Original) The method of claim 2 wherein at least one of the plurality of optical transmitters is a vertical cavity surface emitting laser.

6. (Currently Amended) A network comprising:

a head end;

an interleaving device coupled to the head end; and

a plurality of transmitters coupled to the head end via the interleaving device, each of the plurality of transmitters are enabled to transmit an optical bit during an established time slot corresponding to said each transmitter to the interleaving device to create a bit interleaved optical data stream, wherein the bit interleaved optical data stream is transmitted from the interleaving device to the head end, ~~and~~ wherein each transmitter transmits only one optical bit to the interleaving device within each respective time slot, wherein each time slot has a duration of 10 nanoseconds (ns) and each optical bit is transmitted via a pulse having a pulse width of 2.5 ns, and wherein a peak power of each pulse is higher than a predetermined threshold that would cause human eye damage while an average power of pulses in the bit interleaved optical data stream is below the predetermined threshold.

7. (Original) The network defined in Claim 6 wherein at least one of the plurality of transmitters comprises a vertical cavity surface emitting laser.
8. (Canceled)
9. (Currently Amended) An apparatus comprising:
means for establishing a plurality of transmission time slots, each time slot
corresponding to one of a plurality of optical transmitters coupled to a head end
via an interleaving device;
means for forming a bit interleaved optical stream at the interleaving device based on a
plurality of optical bits transmitted by the plurality of optical transmitters
during a respective time slot associated with each of the optical transmitters,
each of the optical transmitters transmitting only one optical bit to the
interleaving device within each respective time slot, wherein each time slot has
a duration of 10 nanoseconds (ns) and each optical bit is transmitted via a pulse
having a pulse width of 2.5 ns; and
means for transmitting a bit interleaved optical data stream from the interleaving
device to the head end over an optical network, wherein a peak power of each
pulse is higher than a predetermined threshold that would cause human eye
damage while an average power of pulses in the bit interleaved optical data
stream is below the predetermined threshold.
10. (Original) The apparatus of claim 9 further comprising:

means for enabling each optical transmitter to transmit an optical bit during its corresponding time slot.

11. (Original) The apparatus of claim 10 further comprising:

means for adding an additional optical transmitter to the optical network.

12. (Original) The apparatus of claim 11, wherein at least one optical transmitter is a vertical cavity surface emitting laser.

13. (Currently Amended) A computer readable medium, which, when executed by a processing system, enables the system to perform:

establishing a plurality of transmission time slots, each time slot corresponding to one of a plurality of optical transmitters coupled to a head end via an interleaving device;

forming a bit interleaved optical stream at the interleaving device based on a plurality of optical bits transmitted by the plurality of optical transmitters during a respective time slot associated with each of the optical transmitters, each of the optical transmitters transmitting only one optical bit to the interleaving device within each respective time slot, wherein each time slot has a duration of 10 nanoseconds (ns) and each optical bit is transmitted via a pulse having a pulse width of 2.5 ns; and

transmitting the bit interleaved optical data stream from the interleaving device to the head end over an optical network, wherein a peak power of each pulse is higher than a predetermined threshold that would cause human eye damage while an average power of pulses in the bit interleaved optical data stream is below the predetermined threshold.

14. – 17. (Canceled)